



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Silver Spring, MD 20910

## National Marine Fisheries Service (NMFS) Announces the Preferred Alternatives for Atlantic Billfish

NMFS announces the release of the Final Environmental Impact Statement (FEIS) for the Final Consolidated Highly Migratory Species (HMS) Fishery Management Plan, which includes Atlantic billfish. This FEIS contains a number of preferred alternatives that may affect HMS tournament operators and anglers. Publication of the final rule to implement NMFS' selected alternatives is expected in mid-August. A number of important changes that all Atlantic billfish tournament operators and anglers should be aware of are detailed below.

**Requiring Use of Circle Hooks** — To reduce fishing mortality rates of overfished Atlantic billfish, NMFS has preferred an alternative that would, beginning January 1, 2007, require anglers fishing from HMS permitted vessels and participating in billfish tournaments to use only non-offset circle hooks when deploying natural bait or natural bait/artificial lures. This preferred alternative would continue to allow billfish tournament anglers to use J-hooks on artificial lures.

**ICCAT Landing Limit for Atlantic Blue and White Marlin** — To fully conform with U.S. international obligations, NMFS has preferred an alternative that would codify the ICCAT landing limit of 250 recreationally caught blue and white marlin, combined, on an annual basis. This preferred alternative would allow NMFS to adjust the minimum legal size limit and or restrict the recreational marlin fishery to catch and release only, if the ICCAT landing limit is approached or exceeded. NMFS has preferred a 14 day minimum delay in effective date for implementing these in-season management actions, should they become necessary. To facilitate management, NMFS has further preferred an alternative that would shift the Atlantic billfish fishery to a calendar year (January 1 – December 31) management cycle. Both of these preferred alternatives would become effective on January 1, 2007.

**Modified Tournament Registration Requirements** — Finally, the FEIS contains a minor modification to Atlantic HMS tournament registration requirements. To address confusion among some tournament operators with regard to the tournament registration process, NMFS has preferred an alternative that would codify requirements for HMS tournament operators to specifically register with the Highly Migratory Species Management Division and for tournament operators to be in receipt of a confirmation number issued by the HMS Management Division. This change becomes effective 30 days after publication of the Final Rule.

For additional information on these preferred alternatives, please contact Russell Dunn in the HMS Management Division's Southeast Regional Field Office by telephone at (727) 824-5399 or by email at [Russell.Dunn@NOAA.gov](mailto:Russell.Dunn@NOAA.gov).

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Date



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# Facts about Circle Hooks

## What is a Circle Hook?

There is no standard definition for a circle hook, so some hooks being sold as circle hooks really act more like “J”-hooks than circle hooks. With regard to Atlantic HMS, the National Marine Fisheries Service defines a circle hook as a hook originally designed and manufactured so that the point of the hook is turned perpendicularly back toward the shank of the hook to form a generally circular or oval shape. Prince *et al.* (2006) found that in terms of catch, hooking location, bleeding, and release condition the traditionally shaped circle hook had the best performance relative to J-hooks or non-traditionally shaped circle hooks for promotion of live release.

## Circle Hook Research

Numerous published studies conclude that using circle hooks instead of traditionally shaped “J”-hooks can significantly reduce the number of fish killed by anglers practicing catch and release fishing. In a review of 43 circle hook studies, Cook and Suski (2004) found that, in general, hooking mortality rates for fish released from circle hooks were approximately half of those for fish released from “J”-hooks. A recent study by Horodysky & Graves (2005) has shown that by using circle hooks instead of “J”-hooks, recreational anglers can reduce the mortality of released white marlin by two-thirds or more. Circle hooks tend to catch in the jaw or corner of a fish’s mouth instead of in its gut or throat. Prince *et al.* (2002) found J-hooks more than 20 times more likely to cause bleeding in sailfish, relative to circle hooks. Mouth or jaw hooking can reduce the likelihood of serious internal injury to the fish, which can help it survive.

## J-Hooks vs. Circle Hooks

Comparing catches of fish caught on circle hooks and “J”-hooks, Prince *et al.* (2002) found catches per unit of effort (how many fish were caught for a given number of hooks fished) were approximately equal for Pacific blue marlin and were higher on circle hooks for Pacific sailfish. While not statistically significant, Skomal *et al.* (2002), also found that catch rates of bluefin tuna were slightly higher for circle hooks than for “J”-hooks.

## How Do Circle Hooks Work?

The unique curved shape of a circle hook, essentially like that of a capital “G,” helps prevent it from catching in the gut or throat of a fish, where it can cause significant internal injury, and allows it into and lodge in the jaw or corner of the mouth of a fish. This hooking location allows for easy removal with a minimum of trauma to the fish and helps fish survive the catch and release experience. Offsetting a circle hook (bending the point to one side of the shank) reduces the conservation benefit of circle hooks.

There are just two basic rules for using a circle hooks: 1) don’t cover the point with hard or bony portions of the bait; and, 2) don’t set the hook. Setting the hook by jerking the rod will pull the hook out of the fish’s mouth. The hook sets itself when you reel in the line.

## New Circle Hook Regulations

Effective January 1, 2007, a new Federal regulation requires anglers fishing from HMS permitted vessels (and vessels that should be permitted) to use circle hooks when deploying natural baits or natural bait/artificial lure combinations in Atlantic billfish tournaments. This regulation allows the use of “J”-hooks with artificial lures in tournaments. There are no recreational circle hook requirements outside of billfish tournaments. Commercial vessels using pelagic longline gear in Atlantic HMS fisheries have been required to possess and use only circle hooks since August 2004.

